2222B by regions 2210A, 2210B, and 2212. Regions 2222A and 2222B may be formed by a single well of the second conductivity type. Regions 2223A and 2223B may be formed by a single ring region of the second conductivity type. Regions 2210A and 2210B may be formed by a single well of the first conductivity type.

[0082] FIG. **23** shows an embodiment of a HV ESD protection circuit **2300** wherein control circuits **2394** and/or **2395** may be coupled to compensation regions **2305** and **2306**. The control circuits may be any of a resistor, capacitor, diode, MOS device, bipolar, or any combination of these elements or any other electrical elements which may be used to alter the behavior of bipolar **2383** formed in part by compensation region **2306**. The control circuits may alter the resistance of the collector of bipolar **2383** which may affect the operation of bipolar **2383** which, in turn, may impact the feedback of the SCR device.

[0083] By changing the feedback of the SCR device, the holding voltage may be adjusted. During an ESD event, a low holding voltage may be desirable to prevent damage to the chip and to reduce power dissipation. Additional circuitry such as control circuits **2394** and **2395** may alter the holding voltage of the SCR device after the SCR device has been triggered by an ESD event. In one embodiment, the control circuits may act as a switch to decouple regions **2305** and **2306** during a first ESD period, in which the highest ESD energy may be dissipated. A typical duration of the first ESD period may be between 30 ns-100 ns. By decoupling compensation regions **2305** and **2306**, the HV ESD protection circuit **2300** may exhibit a low holding voltage. After the first ESD period, the switch may short together regions **2305** and **2306** which may increase the negative feedback introduced by compensation regions **2305** and **2306**. Increasing the negative feedback may increase the holding voltage which may avoid latch up during normal chip operation. Though this embodiment has been described for a single compensation region pair **2305** and **2306**, one should recognize this technique may be applied to multiple compensation regions introducing multiple negative feedback effects.

[0084] FIG. **24** shows an embodiment of a HV ESD protection circuit **2400** comprising external circuits **2492** and **2493** instead of resistors as similarly shown in FIG. **6**. One should recognize for any embodiment of a HV ESD protection circuit, including any described herein, an external resistance such as resistors **192** and **193** of FIG. **1** may not be necessary. By way of example, an external circuit **2492** may be coupled between regions **2401** and **2403**, and an external circuit **2493** may be coupled between regions **2402** and **2404**. The external circuits **2492** and **2493** may control the biasing of well regions **2420** and **2410** respectively.

[0085] FIG. **25** shows an embodiment of a HV ESD protection circuit **2500** comprising external triggers **2594-2598**. An external trigger may be a resistor, capacitor, diode, MOS device, bipolar, or any other electrical component or combination of components used to turn on the SCR device. Any one trigger of the triggers **2594-2498** may be present. Also, any combination of the triggers **2594-2598** may be present. As shown in FIG. **25**, a trigger may be coupled to at least one of regions **2501**, **2502**, **2503**, **2504**, **2505**, or **2506**. During an ESD event, a trigger may inject current into a region (e.g. a base of a bipolar that makes up the SCR) which may cause junctions of the SCR to become forward biased and turn on the HV ESD protection circuit **2500**.

[0086] FIG. **26** shows an embodiment of a HV ESD protection circuit **2600** similar to FIG. **6** and comprising region **2609** of the same conductivity type as region **2620**. Alternatively, the region **2609** may be of the same conductivity type as region **2610**. If a voltage in region **2620** relative to region **2610** rises to reach the reverse breakdown voltage of the junction between regions **2620** and **2610**, a current may be induced and flow through regions **2603** and **2604** which may be viewed as the trigger taps of the SCR. The induced current may then trigger the SCR device to turn on. Region **2609** may lower the reverse breakdown voltage of the junction between regions **2620** and **2610**. One may view region **2609** as a way to adjust the trigger voltage.

[0087] FIG. **27** shows an embodiment of a HV ESD protection circuit **2700** similar to FIG. **26** comprising a gate **2794** placed between regions **2709** and **2706**. The gate **2794** may block a chip surface isolation layer locally between regions **2709** and **2706** which may tune the reverse breakdown voltage of the junction between regions **2720** and **2710**. Alternatively, a special layer (e.g. shallow trench isolation (STI) block) may be placed to prevent the formation of an isolation layer between regions **2709** and **2706**.

[0088] FIG. **28** shows an embodiment of a HV ESD protection circuit **2800** comprising compensation regions **2805**, **2806**, and **2807** in the LAC of the SCR device. Regions **2805**, **2807**, and **2810** may be of a first conductivity type and regions **2806** and **2802** may be of a second conductivity type. Region **2836** may be a low doped region of the second conductivity type and extend under regions **2806** and **2807**. A first bipolar may be formed by region **2836** (collector), region **2810** (base), and region **2802** (emitter). A second bipolar may be formed by region **2807** (emitter), region **2836** (base), and region **2810** (collector). When the first bipolar conducts current, the current may be drawn from region **2806** which may cause a voltage drop in region **2836**. The voltage drop may cause the junction between regions **2836** and **2807** to become forward biased. The forward biased junction may cause the second bipolar to turn on and inject current into region **2810**. As such the first bipolar and the second bipolar form an additional SCR. The additional SCR decreases the effectiveness of bipolar **2882** by creating a preferred current path to cathode **2802** which may increase the holding voltage of the SCR device.

[0089] FIG. **29** shows an embodiment of a HV ESD protection circuit **2900** comprising a multi-finger structure. In the embodiment shown in FIG. **29**, the left half and right half each constitutes one finger of a two finger structure. Region **2903** may be a trigger tap common to both the left half "A" finger and the right half "B" finger. Region **2920** may be a lower doped region of the same conductivity type as region **2903** common to both fingers. Though FIG. **29** shows an embodiment with two fingers, one should recognize a structure is possible with any number of fingers.

[0090] FIG. **30** shows a top-view of the embodiment of the HV ESD protection circuit **2900** shown in FIG. **29**. Compensation regions **2905** shown in FIG. **29** may be implemented as a single ring region **2905** around region **2920**. Compensation regions **2906** shown in FIG. **29** may be implemented as a single ring region **2906** around region **2905**. Lower doped regions **2936** extending regions **2906** in FIG. **29** may be implemented as region **2936** by surrounding ring region **2906** shown in FIG. **30**.

[0091] FIG. **31** shows an embodiment of a HV ESD protection circuit **3100** comprising a multi-finger structure. In the